

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:
Denman et al.

Serial No.: 10/028,086

Filed: December 21, 2001

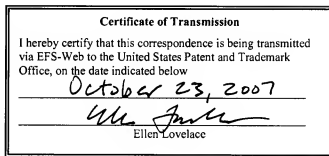
For: PUSH-TO-TALK
TELECOMMUNICATIONS SYSTEM
UTILIZING AN VOICE-OVER-IP NETWORK

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Confirmation No. 1095

Group Art Unit: 2151

Examiner: Phillips, Hassan A.



APPEAL BRIEF

Mail Stop Appeal Brief - Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Brief is submitted in connection with an appeal from the final rejection of the Examiner, dated May 9, 2007, finally rejecting claims 1-16 and 18-36, all of the pending claims in this application, and further to the Notice of Appeal filed August 1, 2007.

A Petition for Extension of Time Under 37 CFR 1.136(a) requesting a one-month extension is being filed concurrently herewith. No additional fees, including additional extension of time fees, are believed necessary for consideration of the present paper. However, if any additional fees, including additional extension of time fees, are necessary, the extension of time is hereby requested, and the Commissioner is hereby authorized to charge any additional

fees, including those for the additional extension of time, to Haynes and Boone, LLP's Deposit Account No. 08-1394.

REAL PARTY IN INTEREST

The real party in interest is NORTEL NETWORKS LIMITED, a Canadian company having a principal office and place of business at, 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec H4S 2A9, Canada.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences regarding the above-identified patent application.

STATUS OF CLAIMS

Claim 17 has been canceled. Claims 1-16 and 18-36 are pending, stand finally rejected, and are on appeal here. Claims 1-16 and 18-36 are set forth in the CLAIMS APPENDIX attached hereto.

STATUS OF AMENDMENTS

No amendments were presented in response to the final Office action mailed May 9, 2007.

SUMMARY OF CLAIMED SUBJECT MATTER

One embodiment of the present invention, as now set forth in independent claim 1, relates to a wireless communication network including push-to-talk (PTT) functionality (Figure 1; paragraphs 0018-0025). The network comprises a Session Initiation Protocol (SIP) Proxy Server (proxy server 16; paragraphs 0005 and 0026) and a SIP Registrar and Location Server operable to store contact addresses of active mobile devices (location server and registrar 36; paragraphs 0021, 0026, and 0056). The network further comprises a PTT Server operable to function as a call endpoint for each of a plurality of mobile devices wherein the plurality of mobile devices are segmented into membership groups (PTT server 34; paragraphs 0005, 0022, and 0026). The PTT Server is further operable to multicast a communication from one member of the group to

the other members of the group (paragraph 0089). The network still further includes an Internet Protocol (IP) network interconnecting the SIP Proxy server, the SIP Registrar and Location Server, and the PTT Server (managed IP network 48, IMS/proxy server 16, PTT server 34).

Another embodiment of the present invention, as now set forth in independent claim 5, relates to a method for user activation of push-to-talk (PTT) service in a wireless communication network (Figure 1; paragraphs 0018-0025). The method comprises initiating a session with a PTT Server wherein a user joins a group (paragraph 0014) and registering a contact for the user for media transmissions to other users in the group (paragraph 0069). The contact for the user is the PTT Server, the PTT Server functioning as an SIP call endpoint for the user (paragraph 0078).

Another embodiment of the present invention, as now set forth in independent claim 15, is a method for push-to-talk (PTT) group calls for users in a wireless communication network (Figure 1; paragraphs 0018-0025). The method comprises receiving a SIP SUBSCRIBE at a PTT Server from a mobile device to request the group's speech token (paragraph 0100), transmitting an acknowledge message to the mobile device from the PTT Server wherein the acknowledge message includes a speech token (paragraph 102), and receiving, by the PTT server, a half-duplex speech communication from the mobile device (paragraph 0014). The method further comprises multicasting the half-duplex speech communication from the PTT Server to other members of a group (paragraph 0089), wherein the multicasting includes use of network address and port translation by the PTT server, whereby the PTT server replaces a destination IP address of a port number of received speech packets with an IP address of a port number of each target user and unicasts modified packets to each target user (paragraphs 0088 and 0089), releasing the speech token (paragraph 100), and notifying the group members that the speech token is available (paragraph 102).

Another embodiment of the present invention, as now set forth in independent claim 26, is a method for PTT private calls for users in a wireless communications network (Figure 1; paragraphs 0018-0025). The method comprises selecting a called party private identification for a private call by a calling party on a mobile device, selecting a PTT function on the mobile device, and transmitting a SIP SUBSCRIBE including the calling and called parties private identifications to request a speech token (paragraph 0016; table included therein). The method further includes redirecting the SIP SUBSCRIBE to a PTT Server for purposes of removing the

calling party and the called party from a multicast group (paragraph 0016; table included therein), receiving an acknowledge message that includes a speech token (paragraph 102), and communicating speech packets from the calling party to the called party in a half-duplex manner (paragraph 0014). The method still further includes transmitting a SIP SUBSCRIBE to release the speech token (paragraph 100) and notifying the calling and called parties that the group's speech token is available (paragraph 102).

Another embodiment of the present invention, as now set forth in independent claim 35, is a method for PTT group calls in a wireless communication network where a plurality of users are registered as members of a multicast group (Figure 1; paragraphs 0018-0025). The method includes requesting a speech token from a PTT Server by pressing a PTT button on a mobile device (paragraph 100), receiving the speech token at the mobile device (paragraph 102), and transmitting a half duplex communication to the PTT Server (paragraph 0014). The method further includes multicasting the half duplex communication from the PTT Server to other members of the group (paragraph 0089), wherein the multicasting includes use of network address and port translation by the PTT server, whereby the PTT server replaces a destination IP address of a port number of received speech packets with an IP address of a port number of each target user and unicasts modified packets to each target user (paragraphs 0088-0089). The method still further includes releasing the speech token by releasing the PTT button (paragraph 100) and sending a speech token available message from the PTT Server to all registered members of the multicast group (paragraph 102).

Another embodiment of the present invention, as now set forth in independent claim 36, is a method for PTT private calls for users in a wireless communication network where the users are registered as members of a multicast group (Figure 1; paragraphs 0018-0025). The method includes entering a called party private identification for a private call by a calling party on a mobile device, transmitting the calling and called parties' private identifications by pressing a PTT button on the mobile device, and redirecting the called party private identification to a PTT Server, which is operable to temporarily remove the calling party and the called party from the multicast group. The method further includes transmitting calling party information to the called party from the PTT Server and communicating directly from the calling party and the called party (paragraph 0016).

GROUND S OF REJECTION TO BE REVIEWED ON APPEAL

Claims 5-16, 18, 19, 23, and 35 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,447,150 to Maggenti et al. ("Maggenti").

Claims 1-4, 20-22, 24-34, and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Maggenti.

ARGUMENT

For the reasons discussed in detail below in Section A, the Examiner has improperly rejected claims 5-16, 18, 19, 23, and 35 as being anticipated by Maggenti. For the reasons discussed in detail below in Section B, the Examiner has improperly rejected claims 1-4, 20-22, 24-34, and 36 as being unpatentable over Maggenti.

It is notable that Maggenti is the only reference on which the Examiner has relied in rejecting the claims throughout the lengthy and extensive prosecution of the present application, during which amendments have been made to all but one of the independent claims. Indeed, even following the Notice of Panel Decision from Pre-Appeal Brief Review mailed August 23, 2006, reopening prosecution of this application, the Examiner continued to rely solely on Maggenti. Appellants have maintained their position that the Examiner's application of Maggenti to the pending claims is improper and for the following reasons entreat the Board to reverse the rejection of the Examiner in its entirety and allow all of the pending claims.

A. Rejections under 35 U.S.C. §102(e)

1. Independent Claim 5

With respect to independent claim 5, to sustain the rejection thereof, the Maggenti patent must contain all of the elements recited in the claim. However, Maggenti fails to disclose at least registering a contact for a user "for media transmissions to other users in the group" wherein the contact for the user "is the PTT Server, the PTT Server functioning as an SIP call endpoint for the user" as recited in claim 5.

In finally rejecting claim 5, the Examiner cited the following passage of Maggenti (column 10, lines 46-55) as allegedly disclosing the subject element:

In order to participate in a specific net, CD 202 initially requests that CM 218 add CD 202 to a list of connected net participants for the desired net. The term "connected" means those users who have registered with CM 218 and are at least receiving communications occurring in a net. Hence, CD 202 will initially know or be able to learn the net-address of any nets in which it wishes to participate. Further, CD 202 will initially know or be able to be configured with the address of a top-level server to which SIP requests may be sent.

Applicants respectfully traverse the Examiner's position in this regard. In particular, the cited portion of Maggenti fails to teach or suggest "registering a contact for the user for media transmissions to other users in the group" where the contact "is the PTT Server, the PTT server functioning as an SIP call endpoint for the user" as required by claim 5. On the contrary, the CM 218 functions as a switch (*see, e.g., Maggenti, column 2, lines 30-33*) rather than an endpoint.

For at least the foregoing reasons, it is apparent that independent claim 5 is allowable over Maggenti.

2. Independent Claims 15 and 35

With respect to independent claim 15, to sustain this rejection, the Maggenti patent must contain all of the elements recited in the claim. However, Maggenti fails to disclose at least "multicasting the half-duplex speech communication from the PTT Server to other members of a group, wherein the multicasting includes use of network address and port translation by the PTT server, whereby the PTT server replaces a destination IP address of a port number of received speech packets with an IP address of a port number of each target user and unicasts modified packets to each target user" as recited in claim 15, as amended.

The Examiner has acknowledged that the cited limitation is "not recited identically as claimed by applicant," but indicates that "network address and port translation" are inherent in the following passage of Maggenti (column 6, line 62, through column 7, line 7):

If no other member currently holds the transmission privilege when the transmission privilege request is received by CM 218, CM 218 transmits a message to the requesting net member, notifying it that the transmission privilege has been granted. Audio, visual, or other information from the first net member may then be transmitted to the other net members by sending the information to CM 218, using one of the just-described transmission paths. In one embodiment, CM 218 then provides the information to the net members by duplicating the information and sending each duplicate to the net members. If a single broadcast

channel is used, the information need only be duplicated once for each broadcast channel in use.

Applicants respectfully traverse the Examiner's position in this regard and submit that the recited limitation is clearly not taught by the cited passage. Specifically, for at least the reasons set forth above with reference to claim 5, the CM 218 does not function as the SIP call endpoint for the user; therefore, there is no need for Maggenti to provide network address and port translation in the manner recited in the subject limitation; therefore, such features are not "inherent" in the disclosure of Maggenti. In other words, because the CM 218 merely functions as a switch (*see, e.g.,* Maggenti, column 2, lines 30-33), rather than an SIP call endpoint, for a user, it is anticipated that the recited translation would not be necessary.

In view of the foregoing, it is apparent that claim 15 is allowable over Maggenti. Independent claim 35 includes limitations similar to those of claim 15 and is therefore also allowable over Maggenti.

3. Dependent Claims 6-14, 16, 18, 19, and 23

Claims 6-14 depend from and further limit independent claim 5 and are therefore allowable for at least the reasons set forth above with respect to claim 5. Claims 16, 18, 19 and 23 depend from and further limit independent claim 15 and are therefore also allowable over Maggenti for at least the reasons set forth above with respect to the allowance of claim 15.

B. Rejections Under 35 U.S.C. §103

1. Independent Claim 1

With regard to independent claim 1, Maggenti clearly fails to teach, suggest, or render obvious at least the following limitation:

a PTT Server operable to function as a call endpoint for each of a plurality of mobile devices wherein the plurality of mobile devices are segmented into membership groups, the PTT Server further operable to multicast a communication from one member of the group to the other members of the group;

With regard to the claim 1 limitation of "a PTT Server operable to function as a call endpoint for each of a plurality of mobile devices wherein the plurality of mobile devices are segmented into membership groups, the PTT Server further operable to multicast a

communication from one member of the group to the other members of the group,” the Examiner cites column 4, line 49-column 5, line 46 and column 22, lines 45-58 of Maggenti as disclosing such a PTT server. Applicants respectfully disagree.

For example, the Examiner has alleged that a PTT server is disclosed by the SIP proxy server (i.e., the CIM) 218 discussed by Maggenti. However, none of the cited portions of Maggenti (i.e., column 4, line 49, through column 5, line 46; column 22, lines 45-58; and Figs. 2 and 8) teach, suggest, or render obvious the CM operating as a "a call endpoint" for each of a plurality of mobile devices, as described in the subject application and explicitly recited in claim 1. On the contrary, as described above with reference to claim 5, the CIM 218 is a configurable switch. For at least this reason, Maggenti fails to describe or suggest each limitation of claim 1, and withdrawal of the rejection of claim 1 is thus requested.

2. Independent claims 26 and 36

With regard to independent claim 26, Maggenti clearly fails to teach, suggest, or render obvious at least “redirecting the SIP SUBSCRIBE to a PTT Server for purposes of removing the calling party and the called party from a multicast group,” as recited in claim 26. The Examiner concedes that Maggenti fails to teach or suggest “redirecting the SIP SUBSCRIBE to a PTT Server for purposes of removing the calling party and the called party from a multicast group.” The cited portion of Maggenti (column 20, lines 26-30) discloses that the CD 202 “may also support the concept of a ‘private call’”; however, the cited text contains no teaching or suggestion of how such a call may be implemented. Applicants assert that the Examiner has taken an impermissible leap to assume that, because Maggenti teaches operating over SIP protocol, that “it would have been obvious” to implement a “private call” in the manner recited in independent claim 26, as set forth above.

Thus, for this mutually exclusive reason, the Examiner’s burden of factually supporting a *prima facie* case of obviousness with respect to independent claim 26 has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn. Independent claim 36 includes limitations similar to those of independent claim 26; therefore, for at least the reasons set forth above with reference to claim 26, the rejection thereof should be withdrawn.

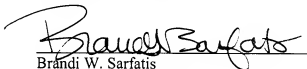
3. Dependent Claims 6-14, 16, 18, 19, and 23

Claims 2-4 depend from and further limit independent claim 1 and are therefore also allowable over Maggenti for at least the reasons set forth above with respect to claim 1. Claims 24-34 depend from and further limit independent claim 26 and are therefore also deemed to be in condition for allowance for at least the same reasons as claim 26.

CONCLUSION

In view of the foregoing, it is respectfully submitted that Mackenzie fails to teach or suggest the subject matter of claims 1-16 and 18-36. For all of the foregoing reasons, it is respectfully submitted that claims 1-16 and 18-36 be allowed. A prompt notice to that effect is earnestly solicited.

Respectfully submitted,



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CLAIMS APPENDIX

1. A wireless communication network including push-to-talk (PTT) functionality, comprising:

a Session Initiation Protocol (SIP) Proxy Server;

a SIP Registrar and Location Server operable to store contact addresses of active mobile devices;

a PTT Server operable to function as a call endpoint for each of a plurality of mobile devices wherein the plurality of mobile devices are segmented into membership groups, the PTT Server further operable to multicast a communication from one member of the group to the other members of the group; and

an Internet Protocol (IP) network interconnecting the SIP Proxy server, the SIP Registrar and Location Server, and the PTT Server.

2. The network of claim 1 wherein the PTT server operates as a signaling endpoint and a back-to-back user agent.

3. The network of claim 1, further including:

a Subscriber Database operable to store subscriber data.

4. The network of claim 1, further including:

a radio access network operable to wirelessly link the plurality of mobile devices to the IP network.

5. A method for user activation of push-to-talk (PTT) service in a wireless communication network, comprising:

initiating a session with a PTT Server wherein a user joins a group;

registering a contact for the user for media transmissions to other users in the group;

wherein the contact for the user is the PTT Server, the PTT Server functioning as an SIP call endpoint for the user.

6. The method of claim 5 wherein the group is closed with pre-provisioned members.
7. The method of claim 5 wherein the group is open whereby any user can join.
8. The method of claim 5 wherein initiating a session includes invoking a SIP INVITE process.
9. The method of claim 8 wherein a To header of the SIP INVITE includes a group specific Uniform Resource Locator.
10. The method of claim 5 wherein registering a contact for the user includes invoking a SIP REGISTER process.
11. The method of claim 5 wherein registering a contact for the user includes registering a group specific Uniform Resource Locator.
12. The method of claim 5 wherein the PTT Server functions as a SIP user agent server and as a multicast router.
13. The method of claim 5 wherein the contact for the user is a SIP URL for the group in the PTT Server.
14. The method of claim 5, wherein initiating a session with the PTT Server includes the PTT Server adding the IP address of the user's mobile device to a multicast group.
15. A method for push-to-talk (PTT) group calls for users in a wireless communication network, comprising:
receiving a SIP SUBSCRIBE at a PTT Server from a mobile device to request the group's speech token;

transmitting an acknowledge message to the mobile device from the PTT Server wherein the acknowledge message includes a speech token;

receiving, by the PTT server, a half-duplex speech communication from the mobile device;

multicasting the half-duplex speech communication from the PTT Server to other members of a group, wherein the multicasting includes use of network address and port translation by the PTT server, whereby the PTT server replaces a destination IP address of a port number of received speech packets with an IP address of a port number of each target user and unicasts modified packets to each target user;

releasing the speech token; and

notifying the group members that the speech token is available.

16. The method of claim 15 wherein the multicasting includes use of a Class D Multicast address.

17. Canceled

18. The method of claim 15 further including authorizing priority members to pre-empt any other group member who has been granted the speech token.

19. The method of claim 15 further including identifying the caller to target users.

20. The method of claim 19 wherein SIP INFO and NOTIFY messages are used to convey a calling party ID.

21. The method of claim 15, wherein notifying the group members that the speech token is available includes sending a SIP INFO message indicating the speech token is available.

22. The method of claim 15, wherein notifying the group members that the speech token is available includes sending a SIP NOTIFY message indicating the speech token is available.

23. The method of claim 15, wherein notifying the group members that the speech token is available includes sending a releasing member the status of the token in the response to the releasing SUBSCRIBE request.

24. The method of claim 15, wherein notifying the group members that the speech token is available includes multicasting to group members a pre-stored tone from the PTT Server.

25. The method of claim 15, wherein the user is a priority user, further including:
queuing the request for the speech token until the speech token is available;
processing the queued request to acquire the speech token when the speech token becomes available.

26. A method for PTT private calls for users in a wireless communications network, comprising:

- selecting a called party private identification for a private call by a calling party on a mobile device;

- selecting a PTT function on the mobile device;

- transmitting a SIP SUBSCRIBE including the calling and called parties private identifications to request a speech token;

- redirecting the SIP SUBSCRIBE to a PTT Server for purposes of removing the calling party and the called party from a multicast group;

- receiving an acknowledge message that includes a speech token;

- communicating speech packets from the calling party to the called party in a half-duplex manner;

- transmitting a SIP SUBSCRIBE to release the speech token; and

- notifying the calling and called parties that the group's speech token is available.

27. The method of claim 26 wherein the transmitting the calling party information uses a SIP NOTIFY message.

28. The method of claim 26 wherein the transmitting the calling party information uses an INFO message.

29. The method of claim 26 wherein notifying the calling party that the group's speech token is available includes sending a response to the SIP SUBSCRIBE that requested releasing of the private-call speech token.

30. The method of claim 26 wherein notifying the called party that the group's speech token is available includes sending a SIP INFO.

31. The method of claim 26 wherein notifying the called party that the group's speech token is available includes sending a SIP NOTIFY.

32. The method of claim 26 wherein notifying the calling and called parties that the group's speech token is available includes multicasting to the calling and called parties a pre-stored tone from the PTT Server.

33. The method of claim 26 further including:
reinstating the calling party and the called party as part of the group upon termination of the private call.

34. The method of claim 33 wherein reinstating the calling and called party as part of the group includes restoring the IP addresses of the parties' mobile devices to the group's multicast group.

35. A method for PTT group calls in a wireless communication network where a plurality of users are registered as members of a multicast group, comprising:

requesting a speech token from a PTT Server by pressing a PTT button on a mobile device;

receiving the speech token at the mobile device;

transmitting a half duplex communication to the PTT Server;

multicasting the half duplex communication from the PTT Server to other members of the group, wherein the multicasting includes use of network address and port translation by the PTT server, whereby the PTT server replaces a destination IP address of a port number of received speech packets with an IP address of a port number of each target user and unicasts modified packets to each target user;

releasing the speech token by releasing the PTT button;

sending a speech token available message from the PTT Server to all registered members of the multicast group.

36. A method for PTT private calls for users in a wireless communication network where the users are registered as members of a multicast group, comprising:

entering a called party private identification for a private call by a calling party on a mobile device;

transmitting the calling and called parties' private identifications by pressing a PTT button on the mobile device;

redirecting the called party private identification to a PTT Server, the PTT server operable to temporarily remove the calling party and the called party from the multicast group;

transmitting calling party information to the called party from the PTT Server;
communicating

EVIDENCE APPENDIX

Not applicable to current appeal

RELATED PROCEEDINGS APPENDIX

Not applicable to current appeal